

1. A method in a computer system for individualizing a heartbeat signal for use as a biometric marker comprising the steps of:

acquiring a plurality of electronic heartbeat signals from an individual in an electronic signal form;

for each electronic signal, measuring, a plurality of pre-selected features;

for each of said features, calculating the measurement's average;

subtracting the measurement's average from each of the measurements to yield a centroid value;

calculating a standard deviation of each measurement;

dividing the centroid value by the standard deviation for each measurement to give a quotient value; and

calculating the probability of divergence of each measurement using the quotient value in a T-distribution analysis.

2. A computer readable medium containing instructions for controlling a computer system to individualize a heartbeat electronic signal for use in biometric authentication, by:

acquiring a plurality of electronic heartbeat signals from an individual in an electronic signal form;

for each electronic signal, measuring, a plurality of pre-selected features;

for each of said features, calculating the measurement's average;

subtracting the measurement's average from each of the measurements to yield a centroid value;

calculating a standard deviation of each measurement;

dividing the centroid value by the standard deviation for each measurement to give a quotient value; and

calculating the probability of divergence of each measurement using the quotient value in a T-distribution analysis.

3. The computer readable medium of claim 2 where said measurements are made on only one variable per observation.

4. The computer readable medium of claim 2 where said measurements are made on two variables per observation.

5. The computer readable medium of claim 2 where said measurements are made on a plurality of variables per observation.

6. A method for individualizing heartbeat waveform comprising the steps of:
capturing and recording a number of heartbeat waveforms;
extracting particular univariate and multivariate features from the waveforms;
individualizing measurements of the univariate and bivariate features of the waveform;
and
calculating probabilities for measurements of the univariate and bivariate features.

7. The method of claim 6 wherein the step of individualizing further comprises the steps of:

subtracting each univariate measurement from the average value of the univariate measurement to yield a centroid;
dividing each centroid by the standard deviation of the univariate feature to yield a quotient;
determining the probability of the quotient using a distribution calculation; and
selecting a threshold minimum probability.